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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,574	07/02/2003	Keith Phillip Laby	157438-0014	7469
1622	7590	09/08/2004	EXAMINER	
IRELL & MANELLA LLP 840 NEWPORT CENTER DRIVE SUITE 400 NEWPORT BEACH, CA 92660			IP, SHIK LUEN PAUL	
			ART UNIT	PAPER NUMBER
			2837	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/614,574

Applicant(s)

LABY, KEITH PHILLIP

Examiner

Paul Ip

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/17/03</u> . | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

1. The information disclosure statement (IDS) submitted on 12/17/2003 in compliances with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 13, 30, 31, and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 13, 30, 31, and 42 are confusing, vague, and indefinite. Claims 13 and 42 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claims 13 and 42 recite a method for operating a roller assembly for a mobile robot without the recitation of any mobile robot for operating the roller assembly. The sole recitation of rotating a transmission roller in continuous contact with a drive ball to rotate the drive ball is insufficient and missing the essential steps for controlling the mobile robot roller assembly of the invention. Claims 30 and 31 recite method steps without any relationships between the steps cause the claims confusing, vague, and indefinite.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derby (4,413,693) in view of Kanayama (5,073,749 and 4,875,172) or Mattaboni (4,638,445).

With respect to claims 1, 2, 7, 8, 13, 30-33, 37, 38, and 42, the patent to Derby shows in figures 1, 2, 4, 6, and 9-12 a drive ball 25, transmission rollers, and a drive mechanism coupled to the transmission roller. Whereas, the claims recite a drive roller assembly for a mobile robot. However, the patents to Kanayama and Mattablin disclose mobile robots with different drive mechanism. Since the claims recite the drive roller assembly for use in a mobile robot without further defining any robot structure, and Derby discloses a mobile chair for moving providing mobile function, it would have been obvious to one of ordinary skill in the art to use Derby's mobile chair with the drive roller assembly for mobile robots as taught or suggested by Kanayama or Mattaboni.

With respect to claims 3, 9, 16, and 24, the Derby shows in figures 1, 2, 4, 7, and 9-12 the transmission roller is attached to a bracket.

With respect to claims 4, 6, 10, 12, 17, 19, 25, 27, 34, 36, 39, and 41, it is inherent Derby's bracket requires a groove in order to allow the transmission roller to make contact with the drive ball.

With respect to claims 5, 11, 18, 26, 35, and 40, Derby shows in figures 1, 2, and 6 the drive pulley as recited in the claims.

Claims 14, 15, 20-23, 28, and 29 further recite a camera, and a pedestal. The patents to Kanayama and Mattaboni show the robot comprising a camera and a pedestal for the keyboard. It is inherent the keyboard can be pivoted or swivel for different position in order to provide comfort data entry functions.

#### ***Citation of Pertinent References***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to West (5,419,008 AND 5,186,270), Bech (6,474,434), Agnides (3,821,995), Shiraishi (4,519,466), Falamak (4,733,737), Case (5,630,566), Asada et al

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(6,135,228), DeVault et al (5,857,534), and Pin et al (5,374,879) disclose roller ball drive systems for mobile robots.

***Customer Services Information***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Ip whose telephone number is (571)-272-1941. The examiner can normally be reached on Monday to Friday from 6:30 a.m. to 3:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin, can be reached on (571)-272-1207. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul Ip  
Primary Examiner  
Art Unit 2837